

SAFETY DATA SHEET

NTA Powder

Section 1. Identification

| | |
|--------------------------------------|--|
| GHS product identifier | : NTA Powder |
| Chemical name | : Nitritotriacetic acid, trisodium salt, monohydrate |
| Other means of identification | : N,N-bis(Carboxymethyl)-glycine, trisodium salt, monohydrate; Nitritotriacetic acid trisodium salt monohydrate; Nitritotriacetic acid, trisodium salt, monohydrate; Glycine, N, N-bis(carboxymethyl)-, trisodium salt, monohydrate; Acetic acid, nitritotri-, trisodium salt, monohydrate |
| Product type | : Powder. |

| | |
|---------------------------|--|
| Supplier's details | : Ascend Performance Materials Inc. 600 Travis Street, Suite 300 Houston, TX 77002 USA 1-713-315-5700 |
|---------------------------|--|

| | |
|---|--|
| Emergency telephone number (with hours of operation) | : Emergency phone: CHEMTREC Toll Free Within USA: 800-424-9300 or +1-703-527-3887 (USA) or +(44)-870-8200418 (UK) or 800-101-2201/ +(65)-31581349 (Singapore) or +(61)-290372994 (Australia) |
|---|--|

Section 2. Hazards identification

| | |
|---|---|
| Classification of the substance or mixture | : ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 CARCINOGENICITY (oral) - Category 2 AQUATIC HAZARD (ACUTE) - Category 3 |
|---|---|

GHS label elements

Hazard pictograms



| | |
|--------------------------|---|
| Signal word | : Warning |
| Hazard statements | : Harmful if swallowed. Causes serious eye irritation. Suspected of causing cancer. Harmful to aquatic life. |

Precautionary statements

| | |
|-------------------|--|
| Prevention | : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection. Avoid release to the environment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. |
| Response | : IF exposed or concerned: Get medical attention. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. |
| Storage | : Store locked up. |
| Disposal | : Dispose of contents and container in accordance with all local, regional, national and international regulations. |

Section 2. Hazards identification

Supplemental label elements :

Other hazards which do not result in classification / Hazards not otherwise classified : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : Nitritotriacetic acid, trisodium salt, monohydrate

Other means of identification : N,N-bis(Carboxymethyl)-glycine, trisodium salt, monohydrate; Nitritotriacetic acid trisodium salt monohydrate; Nitritotriacetic acid, trisodium salt, monohydrate; Glycine, N, N-bis(carboxymethyl)-, trisodium salt, monohydrate; Acetic acid, nitritotri-, trisodium salt, monohydrate

CAS number/other identifiers

CAS number : 18662-53-8 Monohydrate
5064-31-3 Anhydrous

EC number : 225-768-6

Product code : Not available.

| Ingredient name | % | CAS number |
|-----------------------------|---------|------------|
| trisodium nitritotriacetate | 92 - 94 | 5064-31-3 |
| water | 6 - 8 | 7732-18-5 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Mexico

| Name | CAS number | UN number | % | IDLH | Classification | | | |
|-----------------------------|------------|----------------|---------|------|----------------|---|---|---------|
| | | | | | H | F | R | Special |
| trisodium nitritotriacetate | 5064-31-3 | Not regulated. | 92 - 94 | - | 2 | 0 | 0 | - |

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : May cause skin irritation.
- Ingestion** : Harmful if swallowed. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : This material is harmful to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides
hydrogen cyanide
Ammonia.
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing dust. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------------------|--|
| trisodium nitrilotriacetate | Ascend Workplace Exposure Guideline 1 mg/m ³ total dust 8 hour TWA Ceiling 2 mg/m ³ total dust 15 minute STEL |

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

If operating conditions cause high dust concentrations to be produced, use dust goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommended: > 8 hours (breakthrough time): neoprene

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Personal protective equipment (Pictograms)** :



Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Crystalline powder.]
- Color** : White.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 10.6 to 11 [Conc. (% w/w): 1%]
- Melting point** : Decomposition temperature: 340°C (644°F)
- Boiling point** : Decomposition temperature: 340°C (644°F)
- Flash point** : Not applicable.
- Evaporation rate** : Not applicable.
- Flammability (solid, gas)** : No flammable ingredients present.
- Lower and upper explosive (flammable) limits** : Not applicable
- Vapor pressure** : 0.0000000013 kPa (0.000000001 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility in water** : 457 g/l
- Partition coefficient: n-octanol/water** : -13.2
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : 340°C (644°F)
- SADT** : Not available.
- Viscosity** : Dynamic (room temperature): Not applicable.
Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.

Section 10. Stability and reactivity

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|---------------------------------|--------------------------|---|----------|
| trisodium nitrilotriacetate | LC50 Inhalation Dusts and mists | Rat - Male | >5 mg/l | 4 hours |
| | LD50 Oral | Rat - Female | 1300 mg/kg Single dose | - |
| | LD50 Oral | Rat - Male | 1600 mg/kg Single dose | - |
| | NOAEL Dermal | Rabbit - Male, Female | >10000 mg/kg 24 hours per day 25% (aqueous) | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|------------------------------|-------------|
| trisodium nitrilotriacetate | Skin - Erythema/Eschar | Rabbit | 1.5 | 24 hours 25% Pure Product | 5 days |
| | Skin - Erythema/Eschar | Rabbit | 0 | (As Is) | - |
| | Eyes - Irritant | Rabbit | - | 24 hours 38% Pure Product | 8 days |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours (As Is) | 8 days |

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|-----------------------------|-------------------|------------|-----------------|
| trisodium nitrilotriacetate | skin | Guinea pig | Not sensitizing |
| | skin | Man | Not sensitizing |

Mutagenicity

| Product/ingredient name | Test | Experiment | Result |
|-----------------------------|---|---|----------|
| trisodium nitrilotriacetate | 471 Bacterial Reverse Mutation Test | Experiment: In vitro Subject: Bacteria | Negative |
| | 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test | Experiment: In vitro Subject: Mammalian-Animal | Negative |
| | 474 Mammalian Erythrocyte Micronucleus Test | Experiment: In vivo Subject: Mammalian-Animal | Negative |

Carcinogenicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|----------------------|-------------------------|-----------------------------|---|
| trisodium nitrilotriacetate | Positive - Oral - TD | Mouse - Male, Female | 752 mg/kg LOAEL | 18 weeks; 24 hours per day ad libitum |
| | Positive - Oral - TD | Rat - Male | 100 mg/kg 0.1% (aqueous) | 2 years; 24 hours per day ad libitum |
| | Positive - Oral - TD | Rat - Male, Female | 92 mg/kg NOAEL | 2 years; 24 hours per day ad libitum |

Conclusion/Summary : IARC 2B

Classification

Section 11. Toxicological information

| Product/ingredient name | OSHA | IARC | NTP |
|---|------|------|--|
| Glycine, N,N-bis (carboxymethyl)-, sodium salt, hydrate (1:3:1) | - | 2B | Reasonably anticipated to be a human carcinogen. |
| trisodium nitrilotriacetate | - | 2B | Reasonably anticipated to be a human carcinogen. |

Reproductive toxicity

| Product/ingredient name | Maternal toxicity | Fertility | Development toxin | Species | Dose | Exposure |
|-----------------------------|-------------------|-----------|-------------------|--------------------|--------------------------|--------------------------------------|
| trisodium nitrilotriacetate | Positive | Negative | Negative | Rat - Male, Female | Oral: 450 mg/kg LOAEL | 2 years; 24 hours per day ad libitum |

Teratogenicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|-----------------|-----------------|--------------------|-------------------------|
| trisodium nitrilotriacetate | Negative - Oral | Rabbit - Female | 250 mg/kg NOAEL | 9 days During Pregnancy |

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : May cause skin irritation.
- Ingestion** : Harmful if swallowed. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : redness
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Section 11. Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|---|--------------------------|-----------|---|
| trisodium nitrilotriacetate | Chronic NOAEL Oral | Rat - Male, Female | 92 mg/kg | 2 years; 24 hours per day ad libitum 91 days |
| | Sub-chronic NOAEL Dermal | Rabbit - Male, Female | 50 mg/kg | |
| | Sub-chronic NOAEL Inhalation Dusts and mists | Rat - Male, Female | 0.21 mg/l | 28 days; 6 hours per day 5 workdays/week. |

General : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|-------|--------------|
| Oral | 1397.8 mg/kg |

Section 12. Ecological information

Toxicity

| | | | |
|-----------------------------|--|---------------------------------------|----------|
| trisodium nitrilotriacetate | Acute LC50 80 mg/l Fresh water | Crustaceans - Gammarus pseudolimnaeus | 96 hours |
| | Acute LC50 400 mg/l Fresh water | Crustaceans - Physa heterostropha | 48 hours |
| | Acute LC50 560 mg/l Fresh water | Daphnia | 48 hours |
| | Acute LC50 298 mg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| | Acute LC50 103 mg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Chronic EC10 22.8 mg/l (biomass) Fresh water | Algae - Desmodesmus subspicatus | 72 hours |
| | Chronic EC10 74.8 mg/l (growth rate) Fresh water | Algae - Desmodesmus subspicatus | 72 hours |
| | Chronic EC50 91.5 mg/l Fresh water | Algae - Desmodesmus subspicatus | 72 hours |
| | Chronic EC50 143 mg/l Fresh water | Algae - Navicula seminulum | 5 days |
| | Chronic LC50 90.5 mg/l Fresh water | Fish - Oncorhynchus mykiss - Embryo | 27 days |
| | Chronic NOEC 1.43 mg/l Fresh water | Algae - Desmodesmus subspicatus | 72 hours |
| | Chronic NOEC 9.3 mg/l Fresh water | Crustaceans - Gammarus psuedolimnaeus | 21 weeks |
| | Chronic NOEC 18.7 mg/l Fresh water | Crustaceans - Gammarus psuedolimnaeus | 21 weeks |
| | Chronic NOEC 12.5 mg/l Fresh water | Crustaceans - Helisoma trivolvis | 120 days |
| | Chronic NOEC 100 mg/l Fresh water | Daphnia | 21 days |

Section 12. Ecological information

Chronic NOEC 54 mg/l Fresh water

Fish - Pimephales promelas

229 days

Persistence and degradability

Not available.

Bioaccumulative potential

| | | | |
|--|-------|---|-----|
| Nitrilotriacetic acid, trisodium salt, monohydrate | -13.2 | - | low |
| trisodium nitrilotriacetate | -2.62 | - | low |
| water | -1.38 | - | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| Regulation | UN number | Proper shipping name | Hazard classification and Hazard pictograms | Packing group |
|---|----------------|----------------------|---|---------------|
| United States DOT Classification | Not regulated. | - | - | - |
| Canada TDG Classification | Not regulated. | - | - | - |
| Mexico Classification | Not regulated. | - | - | - |
| ADR/RID | Not regulated. | - | - | - |

Section 14. Transport information

| | | | | |
|------------------|----------------|---|---|---|
| IMDG | Not regulated. | - | - | - |
| IATA | Not regulated. | - | - | - |
| Australia | Not regulated. | - | - | - |

Environmental hazards
Marine pollutant

UN
No.

IMDG
No.

IATA
No.

United States RQ

-

Additional information

Consult your local or regional authorities.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): Listed on inventory.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

Section 15. Regulatory information

SARA 304 RQ NTA Powder : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|--|-----|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| Glycine, N,N-bis(carboxymethyl)-, sodium salt, hydrate (1:3:1) | 100 | No. | No. | No. | Yes. | Yes. |

United States State regulations

Massachusetts : The following components are listed: NTA TRISODIUM SALT.H2O
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.
California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|--|--------|--------------|---------------------------|---------------------------------|
| Glycine, N,N-bis(carboxymethyl)-, sodium salt, hydrate (1:3:1) | Yes. | No. | 70 µg/day (ingestion) | No. |

International regulations

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).
Canada inventory : Listed in DSL
International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): All components are listed or exempted.

Canadian lists

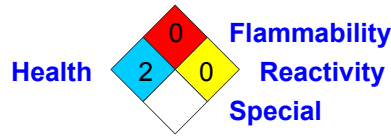
Canadian NPRI : The following components are listed: Nitrilotriacetic acid (and its salts)
CEPA Toxic substances : None of the components are listed.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

Section 15. Regulatory information

Classification :



Australia

Standard Uniform Schedule of Medicine and Poisons

6

Model Work Health and Safety Regulations - Scheduled Carcinogens

No listed substance

HCS Classification Irritating material
Carcinogen
Target organ effects

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | | |
|------------------|---|---|
| Health | * | 1 |
| Flammability | | 0 |
| Physical hazards | | 0 |
| | | |

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



History

Date of printing : 12/22/2014.

Date of issue/Date of revision : 12/22/2014.

Date of previous issue : 11/26/2014.

Version : 11

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Section 16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.